

Hippocampal plasticity and corticosterone : from dendrites to behavior

Citation for published version (APA):

Martínez-Claros, M. (2013). *Hippocampal plasticity and corticosterone : from dendrites to behavior*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20130516mm>

Document status and date:

Published: 01/01/2013

DOI:

[10.26481/dis.20130516mm](https://doi.org/10.26481/dis.20130516mm)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

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Statements

Belonging to the PhD thesis

Hippocampal plasticity and corticosterone: From dendrites to behavior

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Maastricht, 16 May 2013

1. There is a complex relationship between corticosterone levels, neurogenesis in the dentate gyrus and synaptogenesis in the CA3 region of the hippocampus. *(This thesis)*
2. Adrenalectomy decreases dendritic complexity of CA3 pyramidal neurons while moderate corticosterone levels increase the number of surviving new-born cells in the dentate gyrus. *(This thesis)*
3. Adrenalectomy, regardless of corticosterone replacement, results in poorer learning and memory as well as dendritic atrophy of CA3 pyramidal neurons. *(This thesis)*
4. There is an inverted U-shaped dose-response relationship between corticosterone and hippocampal plasticity. *(This thesis)*
5. Neurons born in the adult DG have a limited time frame to be recruited into circuits that process spatial information. *(This thesis)*
6. "Every act of perception, is to some degree an act of creation, and every act of memory is to some degree an act of imagination." *Oliver Sacks*
7. "Worries are pointless. If there's a solution, there's no need to worry. If no solution exists, there's no point to worry." *Matthieu Ricard*
8. "Every man can, if he so desires, become the sculptor of his own brain". *Santiago Ramón y Cajal*
9. "One never notices what has been done; one can only see what remains to be done". *Marie Curie*
10. "What matters in life is not what happens to you but what you remember and how you remember it." *Gabriel Garcia Marquez*